IN THE CLAIMS

31. (Previously presented) A local interconnect comprising:

a composite structure comprising a first metal silicide, a second metal silicide and an intermetallic compound reducing the resistance of said local interconnect, wherein said intermetallic compound comprises metal from said first metal silicide and metal from said second metal silicide, wherein said intermetallic compound contains no non-metallic materials.

32. (Original) The local interconnect of claim 31, wherein said first metal silicide and said second metal silicide each comprise at least one refractory metal.

33. (Original) The local interconnect of claim 32, wherein said at least one refractory metal for said first metal silicide and said second metal silicide is selected from the group consisting of chromium, cobalt, molybdenum, nickel, niobium, palladium, platinum, tantalum, titanium, tungsten, and vanadium.

34. (Original) The local interconnect of claim 32, wherein said first metal silicide comprises titanium silicide and said second metal silicide comprises tungsten silicide.

35. (Previously presented) A local interconnect for connecting a first active semiconductor region to a second active semiconductor region on a substrate assembly, said first and second active semiconductor regions being separated by an insulating region, said local interconnect comprising:

a composite structure comprising a first refractory metal silicide, a second refractory metal silicide and an intermetallic compound reducing the resistance of said local interconnect, wherein said intermetallic compound comprises refractory metal from said first refractory metal silicide and refractory metal from said second refractory metal silicide, said refractory metal from said first refractory metal

silicide being different from said refractory metal from said second refractory metal silicide, wherein said intermetallic compound contains no non-metallic materials.

36. (Original) The local interconnect of claim 35, wherein said composite structure has a thickness in the range of about 700 Angstroms to about 1800 Angstroms.

37. (Previously presented) A semiconductor device comprising:

a substrate assembly having at least one semiconductor layer;

at least one field effect transistor formed in said at least one semiconductor layer, said least one field effect transistor having a source, a drain and a gate; and

a local interconnect for connecting at least one of said source, said drain and said gate to another active area within said substrate assembly, said local interconnect comprising a composite structure comprising a first refractory metal silicide, a second refractory metal silicide and an intermetallic compound reducing the resistance of said local interconnect, wherein said intermetallic compound comprises refractory metal from said first refractory metal silicide and refractory metal from said second refractory metal silicide, wherein said intermetallic compound contains no non-metallic materials.

38. (Previously presented) A memory array comprising:

a plurality of memory cells arranged in rows and columns and formed on a substrate assembly having at least one semiconductor layer, each of said plurality of memory cells comprising at least one field effect transistor; and

at least one local interconnect for connecting at least one of a source, a drain and a gate of said at least one field effect transistor in one of said plurality of memory cells to one of an active area within said one memory cell or to one of a source, a drain and a gate of said at least one field effect transistor in another one of said plurality of memory cells, said local interconnect comprising a composite structure comprising a

first refractory metal silicide, a second refractory metal silicide and an intermetallic compound reducing the resistance of said local interconnect, wherein said intermetallic compound comprises refractory metal from said first refractory metal silicide and refractory metal from said second refractory metal silicide, wherein said intermetallic compound contains no non-metallic materials.

39. (Original) The memory array of claim 38, further comprising a plurality of local interconnects for connecting additional active areas within each of said plurality of memory cells.

40. (Original) The memory array of claim 38, further comprising a plurality of local interconnects for connecting together active areas from different memory cells.

41. (Previously presented) A local interconnect comprising:

a composite structure comprising a first metal silicide, a second metal silicide and an intermetallic compound formed by a reaction between said first metal silicide and said second metal silicide, wherein said intermetallic compound comprises metal from said first metal silicide and metal from said second metal silicide reducing the resistance of said local interconnect, wherein said intermetallic compound contains no non-metallic materials.

42. (Previously presented) The local interconnect of claim 35 , wherein said first metal silicide comprises titanium silicide and said second metal silicide comprises tungsten silicide.

43. (Previously presented) The local interconnect of claim 43, wherein said intermetallic compound comprises titanium tungsten.

44. (Previously presented) The semiconductor device of claim 37, wherein said first metal silicide comprises titanium silicide and said second metal silicide comprises tungsten silicide.

45. (Previously presented) The semiconductor device of claim 44, wherein said intermetallic compound comprises titanium tungsten.

46. (Previously Presented) The memory array of claim 38, wherein said first metal silicide comprises titanium silicide and said second metal silicide comprises tungsten silicide.

47. (Previously Presented) The memory array of claim 46, wherein said intermetallic compound comprises titanium tungsten.

48. (Previously Presented) The local interconnect of claim 41, wherein said first metal silicide comprises titanium silicide and said second metal silicide comprises tungsten silicide.

49. (Previously Presented) The local interconnect of claim 48, wherein said intermetallic compound comprises titanium tungsten.